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ECHO

Lumbar disc degeneration is more common in Olympic athletes than in the normal population

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A small study of 31 elite athletes with lower back pain and/or sciatica who attended the Polyclinic at the Sydney Olympics 2000 were found to have a higher prevalence of lumbar intervertebral disc degeneration compared with non-athletes as described in the published literature.

The athletes were competing in a range of different sports, but the largest group came from track and field (n = 12). Their lumbar spines were examined by MRI and looked at independently for disc signal intensity (for level of degeneration), disc height, and disc displacement.

The study found that the more caudal discs of the athletes were more likely to be abnormal. The most commonly affected disc was L5/S1; 61% of the athletes had reduced signal intensity at L5/S1 and 36% had grade 3 degeneration. Disc height was also more reduced at the more caudal levels but only mildly so. At the L5/S1 level, 58% had a degree of disc displacement, mostly bulging of the disc.

Other published studies have found a significant difference in the radiological appearance of the lumbar spines of athletes compared to non–athlet++es; disc degeneration in one study was more than twice as common (75% compared with 31%).

In spite of the limitations of this small study—the absence of a control group, any histories and only sagittal MR images being available—the high prevalence and degree of disc degeneration in elite athletes warrants further investigation.

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